

ABSTRACT

A unitary counting device for cells and other microscopic particles is described in this invention. The invention also relates to the method of producing the counting device and to the method of using the device. The counting device is constructed with a top part, a connection layer, a base part, and a grid of microscopic lines that are built inside a counting chamber to define counting areas. Furthermore, the counting chamber has a sample introduction port and an air escape port. A connection layer bonds the top part and the base along perimeter of the chamber and maintains gap uniformity. The connection layer consists of a polymer film sandwiched by two layers of pressure sensitive adhesive. Grid lines are fabricated using polymerizable solutions, for narrow and thin lines, which enable counting small particles under high magnifications.